ENVIRONMENTAL ATTITUDES AS PREDICTORS OF POLICY SUPPORT ACROSS THREE COUNTRIES

KIMBERLY S. RAUWALD *received her bachelor's degree with honors in psychology from the University of Wisconsin in 2000. She is currently employed with Accenture and is planning to return to graduate school to pursue her environmental interests.*

COLLEEN F. MOORE *is a professor in the Psychology Department at the University of Wisconsin–Madison. Her major research interests are in developmental psychology, behavioral toxicology, and the psychology of judgment and decision making. Her book,* Silent Scourge: Children, Pollution, and Why Scientists Disagree *(Oxford University Press, in press), combines these interests.*

ABSTRACT: Stephen Kellert's typology of attitudes and Dunlap and Van Liere's New Environmental Paradigm (NEP) Scale represent two different approaches to environmental attitudes. Both approaches were used to predict policy support for environmental protection among college students in Trinidad, the Dominican Republic, and the United States. Results showed country and gender differences in the strength of environmental attitudes. Trinidadians showed the strongest proenvironmental attitudes on the NEP, and both Trinidadians and Dominicans showed stronger proenvironmental attitudes than Americans as indicated by both the NEP and the moralistic/aesthetic items derived from Kellert's typology. The different attitude measures were differentially predictive of policy support in the three countries. Overall, the best predictors of support for environmentally protective policies were the NEP and Kellert's Utilitarian factor. These results support the notion that

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combining the Kellert approach with Dunlap and Van Liere's NEP does increase the predictability of environmental policy support.

While environmental concerns in the United States are an integral part of many social, economic, and political aspects of American life, we know little about how people in other countries and cultures view the environment. Moreover, we know little about what leads people to be concerned about environmental issues. Few systematic studies on environmental attitudes and beliefs across cultures or countries have been done (Bechtel, Verdugo, & Pinheiro, 1999; Schultz & Zelezny, 1999). The purpose of this article is to expand the extent of environmental attitude research in different countries while searching for significant predictors of policy support. Support for environmental policies is important because without public support it is difficult for any government to institute new policies to protect the environment. This study examines the extent to which general environmental attitudes and more specific environmental concerns predict policy support in three different countries: Trinidad, the Dominican Republic, and the United States.

In the United States, Dunlap and Van Liere's (1978) New Environmental Paradigm Scale (NEP) is a very widely used environmental attitude measure. According to Dunlap and Van Liere, ideas such as "limits to growth" and the importance of preserving the "balance of nature" represented a challenge to previously held beliefs that the physical environment could support unlimited growth. The orthodox view of the human-nature relationship is one in which there is a belief in economic growth, material abundance, and humans as above and exempt from the rest of nature. Coined the "dominant social paradigm" (DSP) by Pirages and Erhlich (1974), these views represented society's antienvironmental thrust. Dunlap and Van Liere argued that with the upsurge of environmental awareness in the 1970s, a new set of ideas was challenging the DSP. They set out to measure this developing set of ideas and coined the phrase "new environmental paradigm" (or NEP) to describe this worldview.

According to Inglehart (1990), the shift toward environmentalism in America was linked to a postmaterialist shift in cultural values; in other words, industrial development and a high standard of living were believed to be a prerequisite for the existence of positive environmental attitudes. Thus, it was presumed that high levels of environmental concern existed only among people in developed countries. The reasoning behind this presumption was based on Maslow's hierarchy of needs theory; developing countries could not afford the luxury of environmental concern because they struggled with more basic needs and concerns.

In the past decade, however, scientists have not found empirical results to support this presumption. In their Health of the Planet Survey, Dunlap, Gallup, and Gallup (1993) examined environmental attitudes in 24 countries (including both industrialized and developing nations) and found that citizens of many developing nations were highly concerned about the state of the environment. Other multinational studies (Schultz & Zelezny, 1999) and studies in Turkey (Furman, 1998), Mexico (Corral-Verdugo & Armendáriz, 2000), and the Baltic States (Gooch, 1995) have found similar results. Clearly, environmental concern is not a luxury afforded only by developing countries.

One viable explanation for why positive environmental attitudes exist in developing countries is that culture (Schultz, Unipan, & Gamba, 2000; Schultz & Zelezny, 1999) and values (Schultz & Zelezny, 1998, 1999) play an important role in determining environmental attitudes. Culture—defined by Barnouw (1985) as a set of attitudes, values, beliefs, and behaviors shared by a group of people that are communicated from one generation to the next—is undoubtedly intertwined with environmental attitudes. Culture and value influences are normally instantiated with issues of local and specific concern, and it is therefore important to study how people view their particular environments.

One problem that arises, then, is how we should measure environmental attitudes. Although the NEP has been used for years to measure environmental attitudes, it is limited to measuring general environmental concern rather than measuring concern for more specific environmental issues. Stern and Dietz (1994) proposed a value-basis theory of environmental concern that posits that environmental attitudes are the result of a person's more general set of values. Others have also used values to predict environmental attitudes (Schultz & Zelezny, 1998, 1999; Steger, Pierce, Steel, & Lovrich, 1989). However, measuring general value orientations cannot account for specific or local environmental concerns. Another widely used measure of environmental attitudes was developed by Kellert (1974) and was later modified and slightly expanded (Kellert, 1976, 1980). Kellert's measure was based on a typology of attitudes or valuations toward animals.

Kellert focused on attitudes toward animals to assess basic perceptions of wildlife and the natural world. His research purpose (Kellert, 1976, p. 533) was to search for "fundamental aspects of contemporary human-animal relationships," to understand people's motivations for involvement in animal-related activities (i.e., hunting, pet ownership, animal welfare, etc.). In doing so, he developed several scales, such as "ecologistic, moralistic, naturalistic," that shed light on value orientations toward not only animals but toward the natural world in general (Kellert, 1976, 1996). According to Kellert (1983),

"animals may represent a metaphorical device for people to express basic perceptions and feelings about the non-human world . . . animals often function as a symbolic barometer of people's fundamental beliefs and valuations of nature" (p. 243). In other words, Kellert believed that his measures of attitudes, knowledge, and behaviors toward animals are a reflection of the relationship between humans and nature.

As a supplement to Dunlap and Van Liere's (1978) NEP, Kellert's typology of attitudes offers an additional approach to the challenge of measuring environmental attitudes. Given the content of Kellert's questionnaires, which are always adapted to reflect local issues and assess attitudes and underlying value orientations, this type of measure may be well suited to detecting cultural differences in environmental attitudes. As a part of this research, we created an environmental attitude survey incorporating Kellert's style of environmental attitude measurement. We also administered a shortened version of the NEP.

Although these two environmental attitude measures are distinct, they also share similarities. For instance, both methods have been used in the prediction of behavior and support for management policy. The NEP has been used in the United States in several studies to predict environmentally relevant behavior (recycling, carpooling, switching products for environmental reasons, writing or calling public officials about an environmental issue) and support for state pollution control and conservation programs (Dunlap & Van Liere, 1978; Schultz & Zelezny, 1998; Scott & Willits, 1994; Stern, Dietz, & Guagnano, 1995; Tarrant & Cordell, 1997). Kellert's (1976, 1978, 1979, 1980, 1985, 1991b) surveys have also been used in the prediction of behaviors such as hunting as well as of support for national wildlife management and conservation programs in the United States.

In addition to their use in the United States, both the NEP and Kellert approaches have been used internationally. The NEP has been used in Canada (Edgell & Nowell, 1989), Sweden (Widegren, 1998), the Baltic States (Gooch, 1995), Turkey (Furman, 1998), and Japan (Pierce, Lovrich, Tsurutani, & Abe, 1987) to measure environmental attitudes and beliefs. More recently, the NEP has been used to compare the environmental orientations of college students in several Latin American nations and Spain with those of American students (Bechtel et al., 1999; Schultz & Zelezny, 1999). Kellert's measure was used in Norway (Bjerk & Kaltenborn, 1999; Bjerk, Reitan, & Kellert, 1998; Vittersø, Kaltenborn, & Bjerk, 1998) and in comparative U.S. studies in both Japan (Kellert, 1991a, 1993) and Germany (Kellert, 1993).

Using both the NEP and Kellert approaches, we examined environmental attitudes in the United States and in two developing countries, Trinidad and

Tobago and the Dominican Republic. Trinidad and Tobago is an independent nation that consists of two islands located at the south end of the Caribbean chain, situated 7 miles off the northern coast of Venezuela. Trinidad's land area is just more than 5,000 square kilometers, and the population is just more than 1,175,500 people (CIA, 2000b). These people are largely of African and East Indian ancestry, although small populations of Caucasians and Chinese also live in Trinidad. Because Trinidad was a British colony until 1962, the national language is English. Trinidad is nearly half covered by forests and woodland and represents extraordinary diversity of ecosystems and species (CIA, 2000b). However, at the time of the survey, there existed no legislation governing land use and no publicly protected lands.

The Dominican Republic lies on the east side of the Caribbean island Hispaniola, shared with Haiti. Dominican land area totals more than 48,000 square kilometers and has a population of nearly 8.5 million people (CIA, 2000a). These Hispanic people are overwhelmingly of mixed African and Caucasian ancestry. Originally a Spanish colony, the Dominican national language is Spanish. Unlike Trinidad, only 12% of the Dominican Republic is covered by forest, whereas the largest percentage of land (43%) is used for pasture (CIA, 2000a). Although legislation governing the use of natural resources exists in the Dominican Republic, as do several national parks, laws protecting these and other natural resources are not effectively enforced.

These two countries along with the United States represent three different nations with three different levels of natural resource protection. They represent different cultures with varying levels of existing environmental policy and are ideal for the purpose of this study. By including both the NEP and Kellert environmental attitude approaches, we will examine the relationships between different countries' environmental attitudes and the differences in their support of environmentally protective policies. We predicted that the Dominican sample would score higher on the NEP and the environmental Kellert-type factors than U.S. respondents because results from previous Hispanic studies consistently found Hispanic respondents to be more concerned about environmental issues (Noe & Snow, 1989; Schultz et al., 2000). However, because Trinidadians have not been previously studied and are not Hispanic, we were unsure how Trinidadians would compare with the respondents of the two other countries. Although Trinidad exists in the Caribbean with the Dominican Republic, the people in these two countries have quite different ethnic and cultural backgrounds.

Land and natural resource regulations are critical to environmental protection in both the developing world and in the industrialized world. Although specific regulations in the three nations differ, we examined support for environmentally protective policies because they are essential in all three

settings. The policy items included a measure of support either for the establishment of national parks or for stricter laws and regulations in existing parks. The second policy item referred to support for landowner incentives to voluntarily protect wildlife habitat, and the third item included in this study asked about policy support despite reduced hunting and timber-harvesting opportunities. The concerns represented by these policy items are shared in different form by all three countries.

In summary, the purpose of this study was to measure environmental attitudes and support for environmental policies across three countries and to examine the relationship between the attitude measures and support for specific policies. Although both the NEP and Kellert measures have been used in the United States and internationally to predict other environmental attitudes and policy support, they have not been either directly compared or used together to predict policy support. This study incorporates both of these measures to determine how well they predict public support for national parks, incentives for voluntary natural resource protection, and stricter regulations to protect natural resources.

METHOD

PARTICIPANTS

Participants in the study were university students in Trinidad, the Dominican Republic, and the United States. Participants included 238 students at the University of the West Indies in Trinidad; 275 students at the Universidad Catolica Madre y Maestra in Santiago, Dominican Republic; and 257 students enrolled at the University of Wisconsin–Madison. The median ages of the samples were 21, 19, and 18, respectively, for Trinidad, Dominican Republic, and Wisconsin students. Samples from Trinidad and the Dominican Republic were chosen by distributing the questionnaires in classes representing all categories of majors. All student participants from the University of Wisconsin–Madison were undergraduates enrolled in introductory psychology classes. All students participated voluntarily and anonymously. Wisconsin students received course extra credit for participating. We used university students as participants because students provide equivalent literacy across countries, and they reduce other differences, such as socioeconomic standing, across countries.

Several surveys were removed from the data analysis for failing to follow instructions or leaving a large portion of the survey blank. Therefore, the final

sample consisted of 228 (41% male, 59% female) Trinidadian participants, 273 (43% male, 57% female) Dominicans, and 257 (26% male, 74% female) Americans.

MATERIALS

A four-page questionnaire was administered that measured environmental attitudes, environmental knowledge, support for particular target environmental policies, and demographics. Environmental attitudes were assessed using two different measures.

One of these measures was modeled after Kellert's work and consisted of 27 items measuring attitudes toward animals and the natural world. Responses to most items were on a 10-point Likert-type scale, ranging from *strongly disagree* to *strongly agree*. For 6 of the items, a 10-point Likert-type scale ranging from *being unimportant to you* to *being very important to you personally* was used. (Items are listed with the factor analysis results presented in Table 3.)

The second environmental attitude measure was a 6-item version of the NEP (Dunlap & Van Liere, 1978), designed to capture the major factors of the NEP while allowing the whole survey to be answered within time constraints (specifically, the allotted class time in Trinidad and Tobago). The 6-item version was based on a principal components analysis of the 12-item NEP previously completed by a separate sample of more than 200 University of Wisconsin–Madison students. Although there is debate over the factor structure of the NEP, several other studies have found three dimensions in one or more of their samples (Albrecht, Bultena, Hoiberg, & Nowack, 1982; Edgell & Nowell, 1989; Geller & Lasley, 1985; Noe & Snow, 1989). The 2 items loading the most highly on each of the three factors were chosen and included in the present study.

A third section of the survey consisted of items measuring support for the protection of natural resources through environmental policies. These items were designed to fit each country and were measured on a 6-point Likert-type scale ranging from *strongly support* to *strongly oppose*. Three items were included for Trinidadian and Dominican samples, and four environmental policy items were included for the American sample. The first item referred to the support for establishing national parks (Trinidad) or stricter laws and regulations in existing parks and wilderness areas (Dominican Republic, United States). The additional item included in the American sample measured support for new national parks in the United States. The second item in all three countries asked participants to rate their support for tax incentives to encourage landowners to voluntarily protect plant and animal habitat.

However, the word *tax* was eliminated from the survey in the Dominican Republic because native residents informed us that this concept was unfamiliar and culturally inappropriate. The third item asked about the support for establishing national parks (Trinidad), for stricter laws protecting them (Dominican Republic), and for new national parks (United States), even if these policies would result in reduced hunting and timber-harvesting opportunities.

Because the length of the total survey was not a critical issue in the Dominican Republic and Wisconsin, these samples completed the four-page survey as well as an additional page that included the complete 12-item NEP (Dunlap & Van Liere, 1978) and 10-item Environmental Behavior Scale (Maloney & Ward, 1973).

The survey was initially developed in English and was translated into Spanish for the Dominican sample by a native speaker who was also a professional translator. A different native speaker/professional translator then back translated the survey from Spanish to English. The original and back-translated questions were compared, and modifications were made to the Spanish items to make the two versions more closely equivalent. Prior to distribution of the survey in each country, the content and items were discussed with at least three native residents of the country, who were either faculty members or students, to be sure that the items were culturally appropriate and understandable.

PROCEDURE

The questionnaire was distributed to university students at the respective institutions by the first author. At the University of the West Indies, Trinidad, and at the Universidad Catolica Madre y Maestra, Santiago, Dominican Republic, professors in different departments were contacted personally for permission to distribute the questionnaire to students during class time. Courses in which to distribute the questionnaire were chosen to represent a variety of students and student majors throughout these two universities. The questionnaire was administered in Spanish to Dominican students and in English to Trinidadian students. After preliminary oral instructions by the investigator, participants voluntarily completed the survey at their own pace. In Trinidad, data were collected during classes the last week of April and the first week of May 1999. In the Dominican Republic, data were collected in class during the middle of November 1999, and at the University of Wisconsin–Madison, questionnaires were administered the last week of September and the first week of October 2000 to small groups of up to 20 students, outside of class.

TABLE 1
Demographic Characteristics of Samples From Each Country

Demographic Characteristic	*Trinidad*	*Dominican Republic*	*United States*
Relative income[a]			
Mean (median)	3.33 (4.00)	3.77 (5.00)	3.96 (4.00)
Sample size	100	166	230
Year in school (%)			
1st	60	2	66
2nd	12	45	23
3rd	25	32	8
4th	1	21	3
Postgraduate	2		
Ethnicity[b] (%)	38 African; 28 East Indian; 24 mixed; 9 other/"human race"		91 Caucasian; 5 Asian/Pacific Islander; 2 mixed; 2 Hispanic
Primary country of residence			
Percentage from surveyed country	77	92	94
Percentage from other Caribbean	21	3	0
Percentage from non-Caribbean	2	5	6 (5 Asian, 1 European)
Total sample size	228	273	257

a. Incomes were made appropriate to individual countries to indicate a relative economic standing on a scale from 1 to 5, where 1 < U.S.$20,000; 2 = U.S.$20,000 to U.S.$40,000; 3 = U.S.$40,000 to U.S.$60,000; 4 = U.S.$60,000 to U.S.$100,000; 5 > U.S.$100,000.
b. Consultants at the Universidad Catolica Madre y Maestra suggested that the ethnicity question be omitted in the Dominican Republic due to the sensitive social atmosphere in the Dominican Republic.

RESULTS

DATA REDUCTION AND PRELIMINARY ANALYSES

Table 1 summarizes the demographic characteristics of the sample in each country.

Kellert-type scales. Principal components analysis was applied to the data of all participants for the 27 items modeled after Kellert's work and to each country's data separately. Examination of the scree plots indicated a maximum of five factors. Alpha reliability of the fifth factor derived from the data of all participants was low (.312), and therefore this factor was excluded from

TABLE 2
Factor Loadings and Reliabilities for Kellert-type Items

	Moralistic/ Aesthetic	*Dominionistic*	*Utilitarian*	*Humanistic*
Standardized item alpha	.851	.632	.662	.618
Factor loadings				
Item 1	.847			
Item 2	.819			
Item 3	.790			
Item 4	.755			
Item 5	.674			
Item 6	.602			
Item 7		.707		
Item 8		.649		
Item 9		.578		
Item 10		.564		
Item 11		.412		
Item 12			.682	
Item 13			.594	
Item 14			.578	
Item 15			.517	
Item 16			.492	
Item 17			.451	
Item 18				.768
Item 19				.730
Item 20				–.504

further analysis. Factor solutions differed across countries in small details. To examine the stability of the principal components solution across the three countries, we correlated factor scores calculated from principal components on all participants, with factor scores calculated by running principal components on the data of each country separately (see Gorsuch, 1983, p. 280). Of 12 correlations between corresponding factors (4 for each country), all except 1 exceeded .93. Of 36 correlations between noncorresponding factors (12 per country), 27 were below .10, 6 were between .10 and .15, and only 3 were larger than .15. The percentage of variance that the first four factors accounted for was also similar across countries, 39%, 37%, and 45% for Trinidad, the Dominican Republic, and the United States, respectively. Therefore, we used the principal components analysis of the combined data of all countries to form factors for further analysis. The four factors, with the items and their factor loadings, as well as the reliabilities of the factors formed by averaging the scores on the items, are shown in Table 2.

The first Kellert-type factor, which we named Moralistic/Aesthetic, contained six items that refer either to a sense of ethical responsibility for nature or an appreciation of nature's beauty. The second factor, Dominionistic, contained five items from Kellert's concept of mastery, control, and dominance of nature. Most of these items refer to the use of animals for some human purpose such as hunting or entertainment (e.g., horse races and circuses). The third factor, Utilitarian, included six items that refer largely to the subordination of habitat and species for the practical and material benefit of humans (e.g., employment and development). The fourth factor, Humanistic, included three items that describe Kellert's concept of the emotional capacity for attachment and companionship between humans and animals. Table 3 shows the four factors and the individual items of which each factor is composed.

NEP. Principal components analysis applied to the six-item version of the NEP indicated two factors. The data of all countries combined were analyzed, and the data of each country were analyzed separately. Again, the solutions were similar across countries, with two factors accounting for 54%, 50%, and 63% of the variance in the data of Trinidad, the Dominican Republic, and the United States, respectively. Four of six correlations between corresponding factors derived from all participants and the corresponding factors derived from analysis of the individual countries were larger than .99, and the smallest correlation was .92. Four of six correlations between noncorresponding factors were below .10, and none exceeded .20. In all countries, the same four items had the highest loading on the first factor (which we will refer to as NEP-Environment [Env]), and the same two items had their highest loading on the second factor (NEP-Rule). The items are shown in Table 4. The fact that the NEP items did not load on the three dimensions from which the six-item version was chosen is not surprising, given the lack of consensus on the dimensionality of the NEP. Indeed, several studies have found only two dimensions in one or more of their samples (Bechtel et al., 1999; Gooch, 1995; Noe & Snow, 1989; Scott & Willits, 1994; see Dunlap, Van Liere, Mertig, & Jones, 2000, for a review).

The NEP-Env factor included four items that refer to the need for humans to live in harmony with nature to maintain nature's delicate balance. The standardized item alpha reliability coefficient of the NEP-Env factor in the data of all countries was .535. The NEP-Rule Scale consisted of two items that refer to the purpose of humans as "ruling over the rest of nature." In the data of all countries, the reliability of this factor was .719.

TABLE 3
Kellert Factors and Individual Items

Factor and Item Number	*Survey Item*
Moralistic/Aesthetic	
Item 1	Wanting to protect the natural resources and beauty of the Caribbean (United States)
Item 2	Leaving the earth in a good shape for future generations
Item 3	An appreciation for the beauty of nature
Item 4	Wanting your family to live in a healthy, pleasant environment
Item 5	Nature is God's creation and humans should respect God's work
Item 6	All life in nature has a right to exist
Dominionistic	
Item 7	There is nothing wrong with sports such as horse racing or hunting that require intense training of animals
Item 8	I think that a person sometimes has to beat a horse or a dog to get it to obey orders properly
Item 9	I admire someone who works hard to shoot a large game animal such as a *quenk* or a deer (deer or a bear) (trap a large fish such as a blue marlin)
Item 10	Using animals as performers in circuses is not wrong
Item 11	A dog trained for a task, like a hunting dog (or a dog to protect the house), is generally a better dog than one owned just as a pet
Utilitarian	
Item 12	Natural resources must be developed even if the loss of wilderness results in smaller wildlife populations
Item 13	Protecting jobs right now is more important than saving habitats for plants and animals
Item 14	I approve of building in wetlands that ducks and other nonendangered wildlife use, if these wetlands are needed for housing developments
Item 15	I care more about the suffering of individual animals than I do about the extinction of a species

Item 16	The world would not suffer if species like snakes and mosquitoes were eliminated
Item 17	I see nothing wrong with farmers shooting ocelots (*guaraguaos*) (wolves), if they kill their chickens
Humanistic	
Item 18	I have owned pets that were as dear to me as another person
Item 19	I believe that companion animals can reciprocate affections showed to them by their owners
Item 20	I think love is an emotion that people should feel only for other people, not for animals

NOTE: For the Moralistic/Aesthetic items, the question wording was, "On a scale of 1 to 10 please indicate how important each of the following ideas is to you (10 being *very important to you personally* and 1 being *unimportant to you*)," and for the other factor items, the wording was, "Please indicate to what extent you agree with the following statements." Respondents were asked to choose a number between 1 (*strongly disagree*) and 10 (*strongly agree*) to indicate their agreement.

TABLE 4
NEP Factors and Individual Items

Factor and Item Number	*Survey Item*
NEP-Env	
Item 1	When humans interfere with nature it often produces disastrous consequences
Item 2	The balance of nature is very delicate and easily upset
Item 3	Humans must live in harmony with nature to survive
Item 4	We are approaching the limit of the number of people the earth can support
NEP-Rule	
Item 5	The human race was created to rule over the rest of nature
Item 6	Plants and animals exist primarily to be used by humans

NOTE: NEP = New Environmental Paradigm Scale; NEP-Env = New Environmental Paradigm Scale–Environment factor. The question wording was, "Please indicate to what extent you agree with the following statements." Respondents were asked to choose a number between 1 (*strongly disagree*) and 10 (*strongly agree*) to indicate their agreement.

COMPARISONS ACROSS COUNTRIES

Kellert-type factors. To test nation and gender differences in the four Kellert-type factors, we conducted a 3 (country) × 2 (gender) repeated measures MANOVA on the four factor scores. This analysis revealed significant multivariate main effects for both country, $F(8, 1384) = 18.98$, $p < .001$, and gender, $F(4, 691) = 18.40$, $p < .001$, across the four Kellert-type factors. Follow-up univariate tests indicated that the means on the Moralistic/Aesthetic and Dominionistic factors differed significantly across countries, Fs(2, 694) = 53.92 and 11.97, respectively, ps < .001, whereas the Utilitarian and Humanistic factors did not differ significantly across countries, ps > .05. More specifically, U.S. students scored lower on the Moralistic/Aesthetic factor than either Trinidadian or Dominican students. Dominican students scored significantly higher on the Dominionistic factor than either the Trinidadian or American students. The associated means and standard deviations are shown in Table 5.

In addition to the national differences in the Kellert-type factors, follow-up univariate tests also revealed that the Moralistic/Aesthetic, Dominionistic, and Humanistic factors all differed significantly across gender, Fs (1, 694) = 8.09, 50.18, and 31.57, and ps < .01, .001, and .001, respectively. Women scored significantly higher on the Moralistic/Aesthetic and Humanistic Scales, whereas men scored significantly higher on the Dominionistic Scale. Associated means and standard deviations can be seen in Table 5.

TABLE 5
Group Means and Standard Deviations for Attitude Factors

Factor Scale and Group	n	M	SD
Moralistic/Aesthetic			
Country***			
Trinidad	196	9.34	1.16
Dominican Republic	253	9.31	1.15
United States	251	8.30	1.30
Gender**			
Female	447	9.11	1.16
Male	253	8.85	1.16
Dominionistic			
Country***			
Trinidad	196	3.72	1.58
Dominican Republic	253	4.45	1.56
United States	251	4.05	1.77
Gender***			
Female	447	3.63	1.59
Male	253	4.51	1.59
Utilitarian			
Country			
Trinidad	196	4.15	1.53
Dominican Republic	253	3.98	1.51
United States	251	3.98	1.71
Gender			
Female	447	3.93	1.52
Male	253	4.15	1.54
Humanistic			
Country			
Trinidad	196	7.90	1.90
Dominican Republic	253	7.74	1.88
United States	251	8.13	2.12
Gender***			
Female	447	8.34	1.90
Male	253	7.50	1.91
NEP-Env			
Country***			
Trinidad	215	8.08	1.47
Dominican Republic	266	7.52	1.45
United States	257	7.26	1.65
Gender			
Female	470	7.56	1.45
Male	268	7.68	1.47

(continued)

TABLE 5 (continued)

Factor Scale and Group	n	M	SD
NEP-Rule			
Country***			
Trinidad	215	5.05	2.51
Dominican Republic	266	5.42	2.50
United States	257	3.75	2.82
Gender***			
Female	470	4.25	2.49
Male	268	5.23	2.54

NOTE: NEP-Env = New Environmental Paradigm Scale–Environment factor. The *n*s vary due to missing responses.
**$p < .01$. ***$p < .001$.

The MANOVA also revealed a significant Country × Gender interaction, $F(8, 1384) = 2.74$, $p < .01$. Univariate follow-up tests indicated that for the Moralistic/Aesthetic, Dominionistic, and Humanistic factors, there were significant Country × Gender interactions, Fs(2, 694) = 3.56, 5.04, and 4.03, and ps < .05, .01, and .05, respectively. These interactions are shown in Figure 1. Gender differences in the Moralistic/Aesthetic factor are seen only in the United States (women scoring higher than men), whereas differences on the Dominionistic (men scoring higher than women) and Humanistic (women scoring higher than men) Scales are seen in the United States and Trinidad but not in the Dominican Republic.

Because self-reported income was found to differ slightly across countries, we also conducted a 3 (country) × 2 (gender) repeated measures MANCOVA on the four factor scores, with self-reported income as the covariate.[1] However, approximately 40% of students from the Dominican Republic and 57% of students from Trinidad declined to report family income. As will be shown below, the results of the analyses with income as a covariate are virtually identical to the MANOVA reported above. The MANCOVA revealed significant multivariate main effects for both country, $F(8, 980) = 13.13$, $p < .001$, and gender, $F(4, 490) = 11.64$, $p < .001$, across the four Kellert-type factors. The covariate was not significant in the multivariate analyses, $F(4, 490) = 1.25$, $p > .25$, but did reach significance in the univariate ANCOVA of the Humanistic factor, $F(1, 513) = 4.55$, $p < .04$. The regression coefficient of the covariate for the Humanistic factor was positive (.137), indicating that those reporting higher income tended to have higher scores on the Humanistic factor. Follow-up univariate tests indicated that the means on the Moralistic/Aesthetic and Dominionistic factors differed significantly across countries, $F(2, 519) = 46.56$ and $F(2, 518) = 5.69$, respectively, ps <

.01, whereas the Utilitarian and Humanistic factors did not differ significantly across countries, *p*s > .05. Similar to the previously reported results, U.S. students scored lower on the Moralistic/Aesthetic factor than either Trinidadian or Dominican students. Dominican students scored significantly higher on the Dominionistic factor than either the Trinidadian or American students.

In addition to the national differences in the Kellert-type factors, follow-up univariate tests also revealed that the Moralistic/Aesthetic, Dominionistic, and Humanistic factors all differed significantly across gender, $F(1, 528) = 4.28$, $F(1, 513) = 28.97$, and $F(1, 519) = 20.01$, and *p*s < .04, .001, and .001, respectively. Similar to the MANOVA analyses, women scored significantly higher on the Moralistic/Aesthetic and Humanistic Scales, whereas men scored significantly higher on the Dominionistic Scale.

The MANCOVA also revealed a significant Country × Gender interaction, $F(8, 980) = 2.70$, $p < .01$. Univariate follow-up tests indicated that for the Dominionistic and Humanistic factors, there were significant Country × Gender interactions, $F(2, 518) = 5.75$ and $F(2, 513) = 3.36$, and *p*s < .01 and .05, respectively. The follow-up tests also indicated a trend for the Moralistic/Aesthetic factor, $F(2, 519) = 2.81$, $p < .061$. These interactions were similar to those shown in Figure 1.

NEP factors. We conducted a 3 (country) × 2 (gender) repeated measures MANOVA. This analysis revealed significant main effects for both country, $F(4, 1464) = 22.00$, $p < .001$, and gender, $F(2, 731) = 13.45$, $p < .001$. Follow-up univariate tests indicated that the NEP-Env and NEP-Rule factors both differ significantly across countries, *F*s(2, 732) = 17.36 and 27.08, respectively, *p*s < .001 (see Table 5 for means and standard deviations). Trinidadian students scored higher on the NEP-Env Scale than both the Dominican and American students. Both Trinidadian and Dominican students scored significantly higher on the NEP-Rule Scale than American students. These results may be related to the fact that in rural areas of these developing countries, animals are used for everyday tasks such as farm work, personal transportation, and the transport of goods.

In addition to national differences, follow-up univariate tests also revealed a significant gender difference in the NEP-Rule factor, $F(1, 732) = 25.62$, $p < .001$. Table 5 shows that men scored significantly higher than women on the NEP-Rule factor.

This MANOVA also showed a significant Country × Gender interaction, $F(4, 1464) = 3.30$, $p < .05$. Further univariate tests indicated that only for the NEP-Env factor was there a significant Country × Gender interaction, $F(2, 732) = 6.39$, $p < .05$. Results indicated that in the Dominican Republic, men

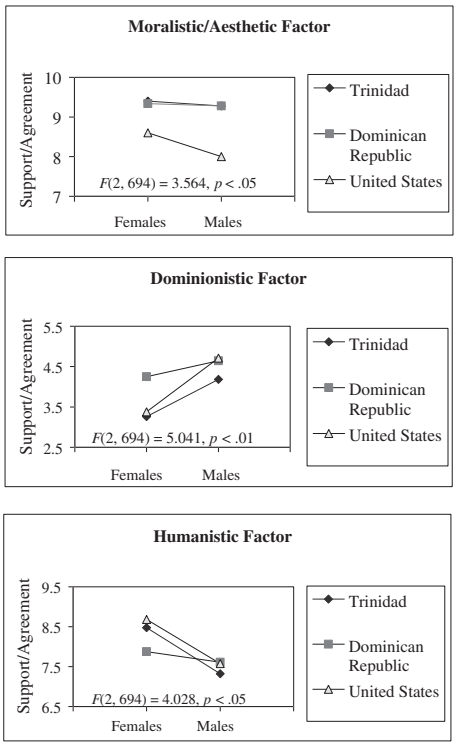

Figure 1: Mean Support Scores for the Moralistic/Aesthetic, Dominionistic, and Humanistic Factors as a Function of Country and Gender

scored higher ($M = 7.85$, $SD = 1.36$) on the NEP-Env Scale than women ($M = 7.19$, $SD = 1.49$), whereas in the other countries, men and women scored similarly. The means of this interaction are graphed in Figure 2.

To test whether income was a major influence on the attitude differences across the studied samples, a 3 (country) × 2 (gender) repeated measures MANCOVA was also conducted, with self-reported income as the covariate. This analysis revealed significant main effects for both country, $F(4, 1040) = 17.21$, $p < .001$, and gender, $F(2, 520) = 7.10$, $p < .001$. The covariate was not significant overall, $F(2, 520) = 2.69$, $p < .07$; however, it did reach significance for the NEP-Rule factor, $F(1, 527) = 4.50$, $p < .04$. The regression coefficient was negative (–.181), indicating that higher self-reported income was related to lower NEP-Rule scores.

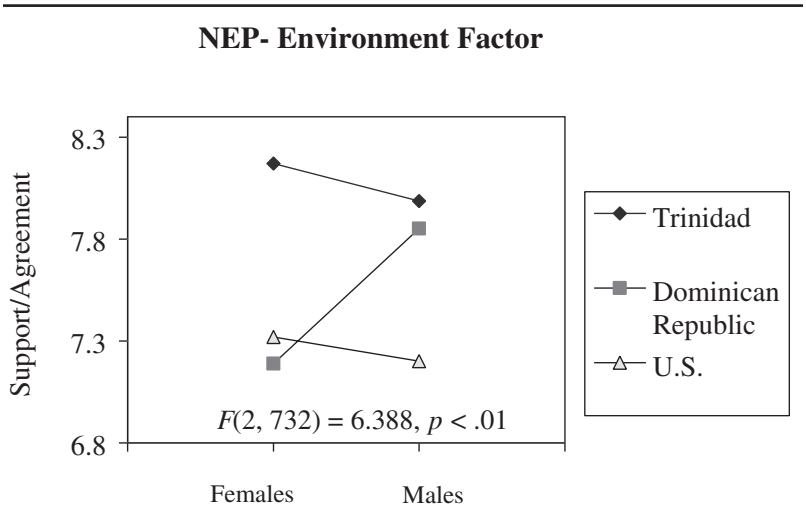

Figure 2: Mean Support Scores for the NEP-Env Factor as a Function of Country and Gender

NOTE: NEP-Env = New Environmental Paradigm Scale–Environment.

Follow-up univariate tests on the MANCOVA replicated the findings of the MANOVA, indicating that the NEP-Env and NEP-Rule factors both differ significantly across countries, $F(2, 521) = 12.61$ and $F(2, 527) = 21.03$, respectively, ps $< .001$. Follow-up univariate tests also replicated the findings of a significant gender difference in the NEP-Rule factor, $F(1, 527) = 11.33$, $p < .001$.

The MANCOVA differed from the MANOVA only in that it did not show an overall significant Country × Gender interaction, $F(4, 1040) = 2.15$, $p < .08$. However, further univariate MANCOVA tests indicated that for the NEP-Env factor, there was a significant Country × Gender interaction, $F(2, 521) = 4.08$, $p < .02$.

Policy items. To determine nation and gender differences on the policy items, we conducted a 3 (country) × 2 (gender) repeated measures MANOVA on the two policy items that were most nearly equivalent across all three countries (support for incentives for preserving the environment and support for environmental protection even if it meant reduced opportunities for hunting and timber harvesting). This analysis revealed a significant main effect for country, $F(4, 1482) = 7.02$, $p < .001$. Follow-up univariate tests indicated that both policy items differed significantly across countries, Fs$(2, 741) =$

TABLE 6
Group Means and Standard Deviations for Policy Scores

Factor Scale and Group	n	M	SD
National Parks			
Country***			
Trinidad	224	1.62	0.75
United States	257	2.07	0.83
Gender			
Female	323	1.77	0.75
Male	158	1.91	0.74
Stricter Laws			
Country***			
Dominican Republic	270	1.29	0.59
United States	257	2.00	0.67
Gender			
Female	346	1.60	0.60
Male	181	1.69	0.61
Incentives			
Country***			
Trinidad	220	1.89	0.95
Dominican Republic	270	1.84	0.94
United States	257	2.20	1.07
Gender			
Female	475	2.02	0.94
Male	272	1.93	0.96
Despite Reduced Opportunity			
Country**			
Trinidad	220	1.98	0.90
Dominican Republic	270	2.17	0.89
United States	257	2.28	1.01
Gender*			
Female	475	2.07	0.89
Male	272	2.22	0.91

NOTE: Low scores on policy items indicate high levels of support. The *n*s vary because of missing responses.
*$p < .05$. **$p < .01$. ***$p < .001$.

9.66 and 6.05, *p*s < .001 and .01, respectively. As Table 6 shows, both Trinidadian students and Dominican students were more supportive of incentives for environmental protection than American students. Support for environmental policy, even when resulting in reduced hunting and timber-harvesting opportunities, was greatest among Trinidadian students (M = 1.98, SD = 0.90), who expressed more support than either Dominicans (M = 2.17, SD = 0.89) or Americans (M = 2.281, SD = 1.01). An important thing to note about this analysis, however, is that these items were not identical across

countries. For instance, in the item about support for environmental policy despite reduced hunting and timber-harvesting opportunities, the first half of the question relates to a specific policy in question, which varied across countries. Students in Trinidad were asked for their degree of support in establishing national parks, students in the Dominican Republic were asked about the policy of establishing stricter laws to protect natural resources, and in the United States students were asked about establishing new national parks.

In addition to the main effect for country, the MANOVA also revealed a significant main effect for gender, $F(2, 740) = 4.13$, $p < .05$. Univariate follow-up tests indicate that significant gender differences existed only for the item about policy support despite reduced opportunities, $F(1, 741) = 5.09$, $p < .05$. Shown in Table 6, women offer more support ($M = 2.07$, $SD = 0.89$) for environmental policy even if it means reduced hunting and timber-harvesting opportunities than do men ($M = 2.22$, $SD = 0.91$).

The remaining policy items were each analyzed separately by univariate ANOVA of the pair of nations for which the item was pertinent. For the policy item referring to establishing new national parks, which was posed to both Trinidadian and American students, the ANOVA revealed a significant main effect of country, $F(1, 477) = 38.86$, $p < .001$. Trinidadian students supported establishing national parks in Trinidad more strongly ($M = 1.62$, $SD = 0.75$) than Americans supported establishing new national parks in the United States ($M = 2.07$, $SD = 0.83$) (see Table 6).

For the policy of establishing stricter laws to protect natural resources, posed to Dominican and American students, the ANOVA revealed a main effect of country, $F(1, 523) = 165.53$, $p < .001$, and a significant Country × Gender interaction, $F(1, 523) = 7.925$, $p < .01$. As seen in Table 6, results indicated that Dominican students supported the establishment of stricter laws significantly more strongly ($M = 1.29$, $SD = 0.59$) than American students ($M = 2.00$, $SD = 0.67$). Moreover, in the United States, women expressed stronger support for the establishment of stricter regulations ($M = 1.88$, $SD = 0.67$) than men ($M = 2.12$, $SD = 0.73$), but in the Dominican Republic, men and women did not differentially support this policy.

PREDICTING POLICY SUPPORT

The applicable importance of measuring environmental attitudes is predicting public support for environmental protection policies. To determine if the NEP and Kellert-type factors of environmental attitude approaches are differentially predictive of support for national parks, stricter environmental regulation on public lands, and tax incentives for voluntary resource protection, we used multiple regression on each of the policy items within each

country. For each policy question, gender along with the NEP factors (NEP-Rule and NEP-Env) and Kellert-type factors (Moralistic/Aesthetic, Dominionistic, Utilitarian, and Humanistic) were used as predictor variables. The results are summarized in Table 7. The same analyses were completed with income as an additional predictor variable. Income was not significant in any case, although it approached significance for predicting support for establishing national parks in Trinidad ($p = .06$). The R^2 values were approximately equivalent whether or not income was included as a predictor variable; therefore, the results with income are not reported.

As can be seen in Table 7, the most striking result is that both the NEP factors and the Kellert-type factors are much better predictors of policy support in the United States than in either of the two other countries. The regression model was significant for all policy items only in the United States, and the regression for the policy question referring to incentives for voluntarily protecting habitat was significant only in the United States ($p \leq .001$), accounting for 17% of the variance. The variables that contributed significantly to support for tax incentives in the United States were NEP-Env ($p < .01$) and the Utilitarian factor ($p < .01$). (Recall that low scores on policy questions indicate high support, and high scores on the environmental factors indicate strong agreement; therefore, the signs on the beta weights in the regression are opposite.) In other words, those who strongly agreed with the NEP-Env concepts of humans living in harmony with nature were more supportive of tax incentives, whereas those who strongly agreed with the Utilitarian concept of nature were significantly less likely to support tax incentives.

In Trinidad, although the overall regression model including all variables was not significant, NEP-Env by itself was a significant predictor of support for tax incentives to voluntarily protect plant and animal habitat ($p < .05$).

For support for environmental protection despite reduced hunting and timber-harvesting opportunities, the regression model was significant in both Trinidad and the United States (ps $\leq .001$), accounting for 22% and 21% of the respective variance. In Trinidad, gender ($p < .05$) and the Utilitarian factor ($p \leq .001$) were significant predictors of policy support. More specifically, men and those in Trinidad who agreed with the subordination of habitat and species for practical human benefit were less likely to support the establishment of national parks when this meant reduced opportunities for hunting and timber harvesting. Similar to Trinidad, in the United States the Utilitarian factor ($p < .05$) was a significant predictor of American opposition to establishing new national parks with reduced hunting and timber-harvesting opportunities. The Dominionistic factor ($p < .01$) was also a significant predictor of opposition to establishing new national parks in the United States but did not reach significance in Trinidad. Also, in the United States, the

TABLE 7
Summary of Simultaneous Regression Analyses for Variables Predicting Policy Support (betas)

Factor	*Tax Incentives*	*Support Despite Reduced Hunting/Timber Opportunities*	*Establishing National Parks*	*Establishing Stricter Laws*
Trinidad				
Gender	–.080	.158*	.051	
NEP-Env	–.167*	–.111	–.204**	
NEP-Rule	.038	.145 ($p < .058$)	.053	
Moralistic/Aesthetic	–.042	.031	–.021	
Dominionistic	–.029	.058	–.004	
Utilitarian	.107	.284***	.228**	
Humanistic	.039	–.025	.045	
R^2	.054 (.018)	.222 (.192)	.119 (.085)	
F	$F(7, 184) = 1.488$	$F(7, 182) = 7.429$***	$F(7, 184) = 3.534$***	
Dominican Republic				
Gender	–.081	–.004		–.066
NEP-Env	–.035	–.135*		–.120
NEP-Rule	.040	.064		–.065
Moralistic/Aesthetic	–.023	–.058		–.171**
Dominionistic	–.004	–.032		–.041
Utilitarian	.100	.096		.245***
Humanistic	–.055	.158*		–.001
R^2	.027 (–.002)	.051 (.023)		.115 (.089)
F	$F(7, 240) = 0.938$	$F(7, 241) = 1.848$		$F(7, 241) = 4.473$***
United States				
Gender	–.086	–.042	.067	.025
NEP-Env	–.198**	–.135*	–.084	–.275***

(continued)

TABLE 7 (continued)

Factor	*Tax Incentives*	*Support Despite Reduced Hunting/Timber Opportunities*	*Establishing National Parks*	*Establishing Stricter Laws*
NEP-Rule	–.022	.089	.020	.017
Moralistic/Aesthetic	–.126 ($p < .052$)	–.162*	–.194**	–.216***
Dominionistic	–.008	.186**	–.141*	.020
Utilitarian	.186**	.147*	.246***	.328***
Humanistic	–.100	.003	–.124 ($p < .055$)	–.001
R^2	.165 (.141)	.207 (.184)	.198 (.175)	.394 (.376)
F	$F(7, 243) = 6.856$***	$F(7, 243) = 9.042$***	$F(7, 243) = 8.552$***	$F(7, 243) = 22.547$***

NOTE: NEP-Env = New Environmental Paradigm Scale–Environment factor. Values enclosed in parentheses represent adjusted R^2 values. Beta values are standardized. Recall that low scores on policy questions indicate high levels of support; therefore, the signs in this regression are opposite.
*$p < .05$. **$p < .01$. ***$p < .001$.

NEP-Env factor and the Moralistic/Aesthetic factor (ps < .05) were significant predictors of support for new national parks, despite reduced hunting and timber-harvesting opportunities. Although the regression model with all variables was not significant in the Dominican Republic, significant predictor variables for establishing stricter laws despite reduced opportunities for agriculture, development, and timber harvesting included NEP-Env and the Humanistic factor (ps < .05).

The regression on support for establishing national parks in Trinidad and new national parks in the United States was significant in both countries, accounting for 12% and 20% of the variance, respectively. In both Trinidad and the United States, the Utilitarian factor ($p < .01$ and $p \leq .001$, respectively) was a significant predictor of opposition to the establishment of national parks. However, in Trinidad, NEP-Env ($p < .01$) was a significant predictor of policy support, whereas in the United States, the Moralistic/Aesthetic factor ($p < .01$) and the Dominionistic factor ($p < .05$) were the significant predictors of support for new national parks.

Multiple regression on the policy of establishing stricter laws and regulations to protect natural resources in the Dominican Republic and the United States was significant in both countries (ps ≤ .001), accounting for 12% of the variance in the Dominican Republic and 39% of the variance in the United States. In both the Dominican Republic and the United States, the Utilitarian factor (ps ≤ .001) and the Moralistic/Aesthetic factor ($p < .01$ and $p \leq .001$, respectively) were significant predictors of support for stricter regulations. In addition, in the United States, the NEP-Env factor ($p \leq .001$) was a significant predictor of support for establishing stricter regulations to protect natural resources.

DISCUSSION

Two major findings emerged from this study: (a) Country and gender differences exist in the strength and portrayal of environmental attitudes in Trinidad, the Dominican Republic, and the United States, and (b) different attitude measures were differentially predictive of environmentally protective policy support in the three countries. In general, both Dominican and Trinidadian students had stronger proenvironmental attitudes than American students, although the means of all three countries were on the proenvironmental end of the response scales. The Dominican and Trinidadian students scored higher on the Moralistic/Aesthetic factor, indicating stronger feelings of ethical responsibility and appreciation for beauty in nature, on average,

than American students. Both Trinidadian and Dominican students also scored higher on average on the NEP-Env Scale than American students. Moreover, Trinidadians scored even higher than Dominicans on the NEP-Env Scale, indicating that the Trinidadian students (of predominantly African and East Indian heritage) have even more proenvironmental attitudes than students from the Dominican Republic, who are predominantly Hispanic. Although previous research has indicated the strength of Hispanic environmental concern (Noe & Snow, 1989; Schultz et al., 2000), the results from Trinidad obtained here were not expected and are a new contribution to the literature on national, ethnic, and cultural differences in environmental attitudes. Perhaps people in other non-Hispanic Caribbean nations also have strong proenvironmental attitudes, and perhaps these are places where environmental regulations and the establishment of protected natural areas would be strongly supported by, and beneficial to, residents.

Another interesting finding is that despite their strong proenvironmental attitudes, Dominican and Trinidadian students scored significantly higher on the NEP-Rule Scale on average than American students, and Dominican students scored significantly higher on the Dominionistic Scale than either Trinidadian or American students. Despite their very strong proenvironmental attitudes, both Trinidadians and Dominicans seem to believe that natural resources exist for human use and understand humans as rulers over nature and users of animals. These findings are similar to the results of a few other studies that have demonstrated that some Latin American nations do not see an inherent dichotomy between the NEP and the Human Exception Paradigm (Bechtel et al., 1999; Corral-Verdugo & Armendáriz, 2000). As stated previously, perhaps this finding can be partially explained by the fact that in these developing countries, animals are used in many rural areas for everyday tasks such as personal transportation and the transport of goods—situations that are much less common in the United States. However, perhaps there is more to this finding. It may be that the lives of these people are more intimately connected to the land and the use of natural resources for sustenance and economic growth. Indeed, in the Dominican Republic the agricultural sector makes up approximately a seventh of the nation's GDP, but interestingly, agriculture in Trinidad, like in the United States, accounts for only 2% of Trinidad's GDP (CIA, 2000a, 2000b). Living in harmony with nature while using nature's resources is a core value in some cultures, such as many of the Native American tribes in North America (e.g., Standing Bear, 1933).

In addition to national differences in environmental attitudes, the results from this research indicate interesting country by gender interactions. Most research addressing gender differences in environmental attitudes has been

done in the United States and has not been cross-national or cross-cultural. Davidson and Freudenburg (1996) evaluated five hypotheses for gender differences in attitudes about environmental risk by reviewing the literature. They also criticized most gender socialization theories as based on concepts of the Western traditional nuclear family. Therefore, the extent to which gender differences found previously in the United States will occur in other countries is not known. In our study, the patterns of gender differences were similar for the United States and Trinidad, whereas the Dominican Republic differed from both countries. At present, the reason for this is not clear, but one possibility is that Hispanic cultures may differ from anglicized cultures such as the United States and Trinidad. As mentioned in the introduction, other studies have found very positive environmental attitudes among Hispanics. Further research could explore whether some of Davidson and Freudenburg's hypotheses apply to gender differences in different countries and cultures.

The findings from our regression analyses showed that in different cultures, different types of environmental attitudes predict different types of policy support. In Trinidad, both the NEP-Env and the Utilitarian factors were predictive for two of the three policy items, whereas policy support in the Dominican Republic was not consistently predicted by any one specific factor. In the United States, the Utilitarian factor was predictive across all policy items, and both the Moralistic/Aesthetic and NEP-Env factors were predictive across three of the four policy items. Also in the United States, the Dominionistic factor was predictive across two of the four policy items. These results seem to indicate that the NEP-Env factor and the Utilitarian factor are the most useful predictors of support for environmental policy.

Although these results support the notion that the combination of the Kellert approach to the measurement of environmental attitudes with Dunlap and Van Liere's NEP does increase prediction of policy support, several limitations need to be recognized. The fact that these approaches best predicted U.S. policy support implies that items measuring attitudes and predicting behavior and/or policy support are created most successfully within the context of a specific country and by a native person's hand. Survey items developed in the United States, by and for Americans, may not as effectively encompass the attitudes and beliefs of those in other nations.

At a conceptual level, the measurement of environmental attitudes is difficult because environmental attitudes include not only general worldviews but also concerns about specific environmental issues as well as underlying value orientations. In this research, we incorporated two very different approaches: the NEP and Kellert's approach to measuring environmental attitudes. The NEP has been shown to measure general environmental concern (Stern et al.,

1995). It measures how people view their relationships with nature; that is, it is a measure of the belief humans have toward their roles in nature. Kellert's factors provide another measure of environmental attitudes, but the items in these factors are based largely on human relationships to animals, a focus that does not necessarily encompass other global environmental concerns such as climate change, pollution, or the loss of biodiversity. Perhaps including other measures, such as Thompson and Barton's (1994) ecocentric and anthropocentric measure, or even Schwartz's (1992, 1994) value items, would strengthen the understanding of the relationship between environmental attitudes and policy support across cultures.

Other limitations of this research are methodological. First, the samples in this study were college students, and the results represent a relatively elite sample of citizens who have received a higher level of education in each country. Although the samples were not representative of the countries as a whole, they were comparable samples of university students across all countries, given some differences in age and year in school. Other recent studies of cultural and national differences in environmental attitudes have also been limited by the use of student samples (Bechtel et al., 1999; Schultz & Zelezny, 1999). A distinct advantage of sampling college students in different countries is that the researcher can be assured that all samples are reasonably comparable in literacy. Attempts to survey broader samples in developing countries often encounter failure to participate due to a lack of literacy.

A second methodological limitation is the complexity of linguistic and conceptual differences across cultures. Although the survey was modified to fit native animals and environmental policies, and although it was translated into Spanish and back translated by a native, for the Dominican Republic, it is always the case in cultural research that the ideas and words included in the survey have slightly different meanings in different cultures.

Environmental problems are global, and solutions to these problems must take place on a global level. However, minimal cross-cultural research on environmental attitudes and support for environmental policies is being conducted. Preserving the environmental integrity of ecosystems requires effective government policies for environmental protection. This study shows how different environmental attitude measures function to predict support for environmentally protective policies in three different cultures. Future research could incorporate other environmental attitude and value measures to further understand and predict environmental policy support.

NOTE

1. Sample sizes differ across analyses because of missing values for the income variable.

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